

ABSTRACT

Wind turbine generator wind farm systems to collect data for use for wind farm control. A combination master-slave supervisory command and data acquisition (SCADA) architecture together with distributed databases local to the data producing device within a wind farm provide functionality for real-time monitoring and control as well as secondary data processing and/or remote user access. The architecture facilitates approximately real-time monitoring and control of devices in the wind farm both locally and remotely while also facilitating reliable archiving of operational data of individual wind turbines as well as totalized wind farm data.